

REMARKS

Applicant affirms the election to prosecute the invention of Group II, claims 11-18, without traverse.

In the Office Action mailed October 2, 2009, the Examiner objected to claim 15 for containing the informality "arranged capably of abutting" and objected to claim 17 for containing the informality "a absorbing-and-holding member." Applicant has amended claim 15 to recite --that is capable of abutting-- and has amended claim 17 to recite --an absorbing-and-holding member--. No new matter has been added. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the objection to claims 15 and 17.

Claims 16 and 18 were rejected under 35 U.S.C. § 112, second paragraph; claims 11, 12, and 14 were rejected under 35 U.S.C. § 103(a) over *Rhee* (US Patent No. 3,555,666) in view of *Couteau* (US Patent No. 6,326,313); claim 13 was rejected under 35 U.S.C. § 103(a) over *Rhee* in view of *Couteau*, *Kellogg* (US Patent No. 5,883,361), and *Stueber* (US Publication No. 2002/0104875); claims 15 and 16 were rejected under 35 U.S.C. § 103(a) over *Rhee* in view of *Couteau* and *Grutta* (US Publication No. 2003/0175520); claim 17 was rejected under 35 U.S.C. § 103(a) over *Rhee* in view of *Couteau* and *Ohkubo* (US Patent No. 6,032,715); and claim 18 was rejected under 35 U.S.C. § 103(a) over *Rhee* in view of *Couteau* and *Masik* (US Patent No. 5,336,353).

By this Amendment, Applicant has amended claims 11 and 15-18. Upon entry of this Amendment, claims 11-18 are pending. Of these, claim 11 is the sole independent claim. Claims 1-10 have been withdrawn as being directed to non-elected subject

matter. The originally-filed specification and drawings fully support the amendments to claims 11 and 15-18. Accordingly, no new matter has been introduced by this Reply.

Applicant respectfully traverses the rejection of claims 16 and 18 under 35 U.S.C. § 112, second paragraph. Claim 16 was rejected because the phrases “the first heating mechanism” and “the second heating mechanism” lack antecedent basis. Applicant has amended claim 16 to recite --a first heating mechanism-- and --a second heating mechanism--. Claim 18 was rejected because the phrase “the positioning mechanism” lacked antecedent basis. Applicant has amended claim 18 to recite --a positioning mechanism--. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the 35 U.S.C. § 112, second paragraph rejection of claims 16 and 18.

Applicant respectfully traverses the rejection of claims 11, 12, and 14 under 35 U.S.C. § 103(a) over *Rhee* in view of *Couteau*. Applicant respectfully submits that claims 11, 12, and 14 are patentably distinguishable over *Rhee* and *Couteau* for at least the reasons described below.

“The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious.”

M.P.E.P. § 2141(III). A proper *prima facie* case of obviousness requires, *inter alia*, that all claim limitations must be considered when judging the patentability of a claim against the prior art. M.P.E.P. § 2143.03.

Currently amended claim 11 recites a bonding apparatus comprising, among other things, “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to

be bonded are held apart from each other by the first holding member and the second holding member.”

Rhee discloses a method of bonding a plurality of laminas (10) while immersed in an alcohol bath (18), preferably under a clamping pressure. *See Rhee* at column 4, lines 22-27. During the immersion step, laminas (10) are already in contact with each other (i.e., because of the gravity), as shown in Fig. 5 of *Rhee*. Therefore, *Rhee* fails to disclose or suggest “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to be bonded are held apart from each other by the first holding member and the second holding member,” as recited in claim 11 (emphasis added). Accordingly, *Rhee* does not disclose or suggest all of the limitations of claim 11, and claim 11 is therefore patentable over *Rhee*.

Couteau discloses an apparatus for performing a nitride strip process having a valve controller that causes a valve to open and drain a bath. *See Couteau* at column 4, lines 30-34. However, *Couteau* does not disclose or suggest “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to be bonded are held apart from each other by the first holding member and the second holding member,” as recited in claim 11, and therefore does not cure the deficiencies of *Rhee*. Accordingly, *Rhee* and *Couteau*, either alone or in combination, do not disclose or suggest all of the limitations of claim 11. Thus, claim 11 is patentable over *Rhee* and *Couteau*. Claims 12 and 14 depend from independent claim 11, and are therefore patentable for at least all of the same reasons that claim 11 is patentable. Applicant respectfully requests that the

35 U.S.C. § 103(a) rejection of claims 11, 12, and 14 over *Rhee* in view of *Couteau* be withdrawn.

Applicant respectfully traverses the rejection of claim 13 under 35 U.S.C. § 103(a) over *Rhee* in view of *Couteau*, *Kellogg*, and *Stueber*. Applicant respectfully submits that claim 13 is patentably distinguishable over *Rhee*, *Couteau*, *Kellogg*, and *Stueber* for at least the reasons described below.

Kellogg discloses a diffusion bonding furnace having a top plate (31) attached to a hydraulic drive mechanism (33). See *Kellogg* at column 4, lines 25-30. However, *Kellogg* does not disclose or suggest “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to be bonded are held apart from each other by the first holding member and the second holding member,” as recited in claim 11, and therefore does not cure the deficiencies of the above references. Accordingly, *Kellogg* and the above references, either alone or in combination, do not disclose or suggest all of the limitations of claim 11, and therefore claim 11 is patentable over these references.

Stueber discloses a diffusion bonding method in which sheets are cleaned with an organic solvent. See *Stueber* at paragraph [0012], lines 4-8. However, *Stueber* does not disclose or suggest “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to be bonded are held apart from each other by the first holding member and the second holding member,” as recited in claim 11, and therefore does not cure the deficiencies of the above references. Accordingly, *Stueber* and the above references, either alone or in combination, do not disclose or suggest all of the

limitations of claim 11, and therefore claim 11 is patentable over these references.

Claim 13 depends from independent claim 11, and is therefore patentable for at least all of the same reasons that claim 11 is patentable. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claim 13 over *Rhee* in view of *Couteau*, *Kellogg*, and *Stueber* be withdrawn.

Applicant respectfully traverses the rejection of claims 15 and 16 under 35 U.S.C. § 103(a) over *Rhee* in view of *Couteau* and *Grutta*. Applicant respectfully submits that claims 15 and 16 are patentably distinguishable over *Rhee*, *Couteau*, and *Grutta* for at least the reasons described below.

Grutta discloses a composite structural member including a plurality of plies that are ultrasonically tack-welded together. See *Grutta* at paragraph [0023], lines 1-5.

However, *Grutta* does not disclose or suggest “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to be bonded are held apart from each other by the first holding member and the second holding member,” as recited in claim 11, and therefore does not cure the deficiencies of the above references. Accordingly, *Grutta* and the above references, either alone or in combination, do not disclose or suggest all of the limitations of claim 11, and therefore claim 11 is patentable over these references.

Claims 15 and 16 depend from independent claim 11, and are therefore patentable for at least all of the same reasons that claim 11 is patentable. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 15 and 16 over *Rhee* in view of *Couteau* and *Grutta* be withdrawn.

Applicant respectfully traverses the rejection of claim 17 under 35 U.S.C.

§ 103(a) over *Rhee* in view of *Couteau* and *Ohkubo*. Applicant respectfully submits that claim 17 is patentably distinguishable over *Rhee*, *Couteau*, and *Ohkubo* for at least the reasons described below.

Ohkubo discloses a wafer bonding device having a vent (7) and a suction member (8) for generating a negative pressure. See *Ohkubo* at column 3, lines 16-24. However, *Ohkubo* does not disclose or suggest “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to be bonded are held apart from each other by the first holding member and the second holding member,” as recited in claim 11, and therefore does not cure the deficiencies of the above references. Accordingly, *Ohkubo* and the above references, either alone or in combination, do not disclose or suggest all of the limitations of claim 11, and therefore claim 11 is patentable over these references. Claim 17 depends from independent claim 11, and is therefore patentable for at least all of the same reasons that claim 11 is patentable. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claim 17 over *Rhee* in view of *Couteau* and *Ohkubo* be withdrawn.

Applicant respectfully traverses the rejection of claim 18 under 35 U.S.C.

§ 103(a) over *Rhee* in view of *Couteau* and *Masik*. Applicant respectfully submits that claim 18 is patentably distinguishable over *Rhee*, *Couteau*, and *Masik* for at least the reasons described below.

Masik discloses a process for producing a circuit board that includes pressing prepreg sheets together. See *Masik* at column 4, lines 2-8. However, *Masik* does not

disclose or suggest “a treatment-liquid supplying mechanism that supplies a treatment liquid into the treatment chamber when the first object to be bonded and the second object to be bonded are held apart from each other by the first holding member and the second holding member,” as recited in claim 11, and therefore does not cure the deficiencies of the above references. Accordingly, *Masik* and the above references, either alone or in combination, do not disclose or suggest all of the limitations of claim 11, and therefore claim 11 is patentable over these references. Claim 18 depends from independent claim 11, and is therefore patentable for at least all of the same reasons that claim 11 is patentable. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claim 18 over *Rhee* in view of *Couteau* and *Masik* be withdrawn.

The Office Action contains characterizations of the claims and the related art with which Applicant does not necessarily agree. Unless expressly noted otherwise, Applicant declines to subscribe to any statement or characterization in the Office Action.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.


Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

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Respectfully submitted,

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